Amendments to the Claims

1. (Currently amended) A method to synchronize transmission of a plurality of data between a first source device and a destination, said method comprising:

transmitting said plurality of data in a first frequency band from said first source device;

receiving said plurality of data into a buffer at said destination device;

transmitting a plurality of synchronization pulses in a second frequency band from a second source device, wherein said second frequency band is substantially different from said first frequency band;

receiving said plurality of synchronization pulses at said destination device; and

receiving a sequence number at said destination device to determine when said destination device will access said plurality of data from said buffer.

2. (Original) The method of claim 1, further comprising extracting a sequence number from said plurality of synchronization pulses received by said destination device to determine when and in which order said destination device will access said plurality of data from said buffer.

3. (Original) The method of claim 1, wherein said first source device and said destination device are connected in a network by a power line.

4. (Original) The method of claim 1, wherein said first frequency band is at a higher frequency than said second frequency band.

5. (Original) The method of claim 1, wherein said first frequency band is at a lower frequency than said second frequency band.

6. (Original) The method of claim 1, wherein said first source device and said second source device are the same device.

7. (Original) The method of claim 1, wherein said plurality of synchronization pulses adjusts a clock signal used by said destination device.

8. (Original) The method of claim 7, wherein said plurality of synchronization pulses adjusts a phase-locked-loop (PLL) in said destination device.

9. (Original) The method of claim 1, wherein said plurality of synchronization pulses is transmitted to said destination device by a transmission media selected from a group consisting of: a pair of wires, a double pair of wires, a coaxial cable, radio transmission, infrared transmission, one optical fiber, and two optical fibers.

10. (Original) The method of claim 1, wherein said plurality of synchronization pulses and said plurality of data are transmitted using one modulation method.

11. (Currently amended) The method of claim 10, wherein said plurality of synchronization pulses and said plurality of ~~multimedia~~ data are transmitted using orthogonal differential frequency (ODFM) modulation.

12. (Currently amended) The method of claim 10, wherein said plurality of synchronization pulses and said plurality of ~~multimedia~~ data are transmitted using a modulation method selected from a group of modulation methods consisting of: QAM, CODFM, DFM, PSK, BPSK, or QPSK.

13. (Original) The method of claim 1, wherein said plurality of synchronization pulses is transmitted with a different modulation from a modulation used to transmit said plurality of data.

14. (Original) The method of claim 1, wherein said plurality of synchronization pulses is transmitted without modulation.

15. (Original) The method of claim 1, wherein said plurality of data has an embedded sequence number.

16. (Original) The method of claim 1, further comprising receiving said plurality of synchronization pulses by a global positioning satellite (GPS) receiver in said destination device.

17. (Original) The method of claim 1, wherein said plurality of data includes audio data.

18. (Currently amended) A method to deterministically transmit a plurality of data between a first source device and a destination device, said method comprising:

transmitting said plurality of data in a first frequency band from said first source device;

receiving said plurality of data into a buffer at said destination device;

transmitting a plurality of synchronization pulses in a second frequency band from a second source device, wherein said second frequency band is substantially different from said first frequency band;

receiving said plurality of synchronization pulses at said destination device,

wherein said plurality of synchronization pulses adjusts a local clock in said destination device; and

extracting a sequence number from said plurality of synchronization pulses received by said destination device to determine when and in which order said destination device will access said plurality of data from said buffer.

19. (Original) The method of claim 18, wherein said first source device and said destination device are connected in a network by a power line.

20. (Original) The method of claim 18, wherein said first source device and said second source device are the same device.

21. (Original) The method of claim 18, wherein said first frequency band is at a higher frequency than said second frequency band.

22. (Original) The method of claim 18, wherein said first frequency band is at a lower frequency than said second frequency band.

23. (Original)The method of claim 18, wherein said plurality of synchronization pulses and said plurality of data are transmitted using one modulation method.

24. (Original) The method of claim 18, wherein said plurality of synchronization pulses is transmitted with a different modulation from a modulation used to transmit said plurality of data.

25. (Original) The method of claim 18, wherein said plurality of synchronization pulses is transmitted without modulation.

26. (Original) The method of claim 18, wherein said plurality of data has an embedded sequence number, which said destination device can extract to determine when to access said plurality of data from said buffer.

27. (Currently amended) A deterministic network to synchronize transmission of a plurality of data between a first source device and a destination device, said deterministic network comprising:

a first source device to transmit said plurality of data;

a second source device to transmit a plurality of synchronization pulses;

a destination device to receive said plurality of synchronization pulses, including

a buffer to receive said plurality of data, and

a controller to calculate a sequence number to determine when said controller will access said plurality of data from said buffer;

a first transmission medium to transmit said plurality of data in a first frequency band from said first source device to said destination device; and

a second transmission medium to transmit said plurality of synchronization pulses in a second frequency band from said second source device to said destination device, wherein said second frequency band is substantially different from said first frequency band.

28. (Original) The network of claim 27, wherein said destination device determines said sequence number from said plurality of synchronization pulses.

29. (Original) The network of claim 27, wherein said first transmission medium and said second transmission medium are the same transmission medium.

30. (Original) The network of claim 27, wherein said first source device and said destination device are connected in a network by a power line.

31. (Original) The network of claim 27, wherein said first source device and said second source device are the same device.

32. (Original) The network of claim 27, wherein said first frequency band is at a higher frequency than said second frequency band.

33. (Original) The network of claim 27, wherein said first frequency band is at a lower frequency than said second frequency band.

34. (Original) The network of claim 27, wherein said plurality of synchronization pulses adjusts a clock signal used by said destination device.

35. (Original) The network of claim 34, wherein said plurality of synchronization pulses adjusts a phase-locked-loop (PLL) in said destination device.

36. (Original) The network of claim 27, wherein said plurality of synchronization pulses is transmitted to said destination device by a transmission media selected from a group

consisting of: a pair of wires, a double pair of wires, a coaxial cable, radio transmission, infrared transmission, one optical fiber, and two optical fibers.

37. (Original) The network of claim 27, wherein said plurality of synchronization pulses and said plurality of data are transmitted using the same modulation method.

38. (Original) The network of claim 37, wherein said plurality of synchronization pulses and said plurality of multimedia data are transmitted using orthogonal differential frequency (ODFM) modulation.

39. (Original) The network of claim 37, wherein said plurality of synchronization pulses and said plurality of multimedia data are transmitted using a modulation method selected from a group of modulation methods consisting of: QAM, CODFM, DFM, PSK, BPSK, or QPSK.

40. (Original) The network of claim 27, wherein said plurality of synchronization pulses is transmitted with a different modulation from a modulation used to transmit said plurality of data.

41. (Original) The network of claim 27, wherein said plurality of synchronization pulses is transmitted without modulation.

42. (Original) The network of claim 27, wherein said plurality of data has an embedded sequence number.

43. (Original) The network of claim 27, wherein said destination device comprises a global positioning satellite (GPS) receiver receiving said plurality of synchronization pulses.

44. (Original) The network of claim 27, further comprising an error detection circuit in said destination device.

45. (Original) The network of claim 27, wherein said plurality of data includes audio data.

46. (Original) The network of claim 27, wherein said plurality of data includes video data.

47. (Original) The network of claim 27, wherein said first transmission medium and said second transmission medium comprise a communication network, said first source device and said second source device comprise an audio controller, and said destination device comprises one or more speakers coupled to said communication network.

48. (Original) The network of claim 27, wherein said destination device further includes one or more demodulators demodulating said plurality of data and said plurality of synchronization pulses.

49. (Original) The network of claim 27, wherein said destination device further includes a detector extracting said sequence number from said plurality of synchronization pulses.

50. (Currently amended) A computer-implemented method for synchronizing transmission of a plurality of data between a source device and one or more destination devices, the method comprising:

receiving a plurality of data transmitted from said source device at a first frequency band;

subsequently receiving a plurality of synchronization pulses transmitted from said source device at a second frequency band, wherein said second frequency band is substantially different from said first frequency band;

adjusting a clock local to each of said one or more destination devices in response to said plurality of synchronization pulses received;

determining a sequence number extracted from said plurality of synchronization pulses; and

invoking said one or more destination devices to access said plurality of data according to said sequence number.

51. (Currently amended) A computer program product for synchronizing transmission of a plurality of data between a source device and one or more destination devices, wherein said computer program product is stored on a computer readable medium and adapted to perform operations of:

receiving said plurality of data transmitted from said source device at a first frequency band;

subsequently receiving a plurality of synchronization pulses transmitted from said source device at a second frequency band, wherein said second frequency band is substantially different from said first frequency band;

adjusting a clock local to each of said one or more destination devices in response to said plurality of synchronization pulses received;

determining a sequence number extracted from said plurality of synchronization pulses; and

invoking said one or more destination devices to access said plurality of data according to said sequence number.

52. (Original) The computer' program product of claim 51, wherein said second frequency band is higher than said first frequency band.

53. (Original) The computer program product of claim 51, wherein at least one of said one or more destination devices comprises a phase-locked-loop (PLL) and said plurality of synchronization pulses adjusts said PLL.

54. (Original) The computer program product of claim 51, wherein said plurality of data is selected from a group consisting of audio data, visual data, and audio-visual data.